GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

UNSTARRED QUESTION NO:2588
ANSWERED ON:22.07.2009
TRANSGENIC FRUITS
Rao Shri Sambasiva Rayapati

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the National Botanical Research Institute, Lucknow has developed transgenic varieties of mangoes and bananas that will have longer ripening period and shelf life;

(b) if so, the details thereof;

(c) whether the field experiments in this regard have been conducted;

(d) if so, the details thereof; and

(e) the time by which varieties of these plants are likely to be put to commercial use?

Answer

MINISTER OF THE STATE IN THE MINISTRY (INDEPENDENT CHARGE) OF SCIENCE & TECHNOLOGY AND EARTH SCIENCES (PRITHVIRAJ CHAVAN)

(a) Yes, Sir.

(b) National Botanical Research Institute, Lucknow has developed the transgenic banana plants carrying desired genes which have been tested at molecular level. At this time under controlled experimental conditions in the Laboratory, plants have grown to maturity and have started flowering. The banana transgenics have antisense construct of expansin and MADSrin gene. Analyses to confirm a phenotype will be taken up soon.

In the case of mango, the gene identification, its characterization and constructs preparation for transformation has been achieved. A suitable transformation system is being worked out.

(c)&(d) Permission for field trials for bananas has been requested from Regulatory Committee on Genetic Manipulation (RCGM). However, in the case of mangoes the experiments are only at the laboratory level.

(e) Since the research work is still going on, the commercialization in the case of bananas and mangoes shall be taken up later after regulatory permission is obtained.